

Research Fellow

Candidate Brief

Location	Bell Street, Dundee
Grade/Salary	Grade 6 £27,025 – £32,236
Hours	Full Time, 35 hours
Closing Date	23 February 2020
Interview Date	3 March 2020



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1. Abertay University

Abertay University is a modern, pioneering and ambitious university with around 5,000 students. We have a strong and evolutionary tradition of preparing students for the industries and jobs of the modern world. Today, this innovative approach is clearly visible in the University's programme provision which ranges from forensic, sport and food sciences to biotechnology, cybersecurity and computer games. For the latter, Abertay is renowned internationally.

Abertay has made its mark with high-quality, well-directed teaching and research, which in turn, provides a stimulating and enriching experience for our students. We are the leading modern university in Scotland for 'research intensity' and best for student satisfaction. This is central to our long-term plan to embed a research-led culture throughout the institution.

Our approach towards curriculum reformation aimed at transforming the student experience and unlocking potential, creates a dynamic learning environment which led to our shortlisting for the Times Higher Education University of the Year Award in 2016.

Abertay University has achieved the Athena Swan Bronze Award, recognising the university's achievements in respect of gender equality. The university is also proud to hold the Race Equality Charter Mark Bronze Award for our ongoing commitment and active steps to improving race equality for our staff and students. Abertay University holds a Gold Award for Healthy Working Lives, a Silver Award for the Armed Forces Covenant, and is recognised as a Cycle Friendly Employer.

Abertay University has a long-term plan to integrate our teaching, research, and knowledge exchange activity in order to equip our staff and students to prosper in established and emerging knowledge economies. Accordingly, Abertay submitted 30% more staff, and more Units of Assessment, for the Research Excellence Framework 2014 compared to RAE 2008.

Further information on teaching & learning, and research at Abertay is available at:

<https://www.abertay.ac.uk/discover/work-here/working-at-abertay/learning-development/tle/>

<http://www.abertay.ac.uk/research/ref2014/>

Abertay is committed to being an excellent university, equal to the best in Scotland and making our own unique contribution to society. The values and principles which guide the activities of Abertay are seen in its strategic plan for the period 2015-2020.

<http://abertay.ac.uk/media/Strategic%20Plan%202015%20for%20web.pdf>

The Campus

The city center campus itself is an eclectic mixture of everything from the Edwardian Old College to our outstanding and award-winning Bernard King Library. The heart of the University lies in Bell Street, with most teaching and learning facilities, offices, research centres and the Library all within just a few yards of each other.

The City of Dundee

Dundee is a historic city set in a beautiful, sunny location on the east coast of Scotland. The city center and waterfront is currently undergoing a £1 Billion redevelopment. The West End of the city is popular, with its historic 19th century buildings and protected conservation area status, as are outlying towns such as Broughty Ferry and Carnoustie to the east. Dundee also enjoys a convenient central location which means that you are always a short distance from other great locations within Scotland, from the North Sea coast to spectacular glens and forests, to the country's historic capital and financial hub Edinburgh, and to Glasgow the vibrant cultural, shopping and commercial center. As well as being a compact city, Dundee has good schools and affordable property prices. Although little more than an hour's drive away from Edinburgh, Glasgow and Aberdeen, Dundee's property prices can easily be half those of Scotland's largest cities.

Dundee is the UK's first UNESCO City of Design based on its contributions to medical research and the creative industries. From 2018 Dundee will also be home to the second Victoria and Albert Museum, the V&A Museum of Design.

Further information about Dundee is available at:

<http://www.abertay.ac.uk/about/humanresources/livingindundee/>

Research and Knowledge Exchange

Abertay University is a compact, focused institution, which enables us to work effectively both within and across traditional research boundaries. The Abertay University Research and Knowledge Exchange strategy, R-LINCS (Research-Led Innovation Nodes for Contemporary Society), bridges conventional boundaries between research disciplines to devise innovative approaches to address societal challenges. R-LINCS is structured into four themes: **Creative Industries, Environment, Security, and Society**. These themes address key local, national and international priorities, building on our existing areas of expertise and on our industry facing heritage. Our ambitious long-term plan to build capacity and drive interdisciplinary research and innovation is being stimulated by a strategy framework, support and internal investment.

Further information is available at:

<http://www.abertay.ac.uk/research/researchstrategy/>

2. The Service and Area

School of Applied Science

The School of Applied Sciences has a strong reputation in the design and delivery of innovative programmes that reflect today's employment needs. Many of our degrees are accredited by professional bodies and are co-designed with industry to have relevance, with practical applications to real world settings. We aim to ensure that students will gain not only a valuable qualification, but also transferable skills to allow them to fulfil their ambitions. The School works closely with the University Graduate School to support postgraduate research, education and training, provision of teaching experience and STEM outreach activity.

The School is organised into four Divisions – Health Sciences; Psychology and Forensic Science; Sport and Exercise Sciences; Engineering and Food Science; and currently offers 19 undergraduate and four taught post-graduate courses with a clear vocational theme. The School had a strong presence in REF2014 with many of our subjects leading the rankings of research intensity for modern universities in Scotland. Our excellent research resources are all based on one University site, which encourages regular contact between researchers from different disciplines and thereby helps foster multi-disciplinary groups and inter-disciplinary research. Our laboratory facilities are overseen by discipline experts and serviced by University technical support.

Our research and consultancy services have enabled staff to influence health, education, and environmental policies and practices nationally, as well as impacting developments in the food, biomedical and engineering sectors. We have a vibrant body of research students, and have healthy levels of grant and knowledge exchange funding. Abertay University's tenet of being 'rooted in the community' is exemplified by the external engagement activities of the School's staff and students.

Division of Engineering and Food Science

The Division of Engineering and Food Science provides undergraduate Bachelor programmes in food and drink i.e. BSc (Hons.) Food, Nutrition and Health, BSc (Hons.) Fitness Nutrition and Health and BSc (Hons.) Food and Consumers science. These degree programmes use our experience of delivering solutions to the food industry as well as our expertise in consumer and health research to deliver an innovative curriculum, which fully prepares our graduates for the workplace.

We have strong links to many industrial partners. Abertay University had recently a huge refurbishment of our food and science laboratories (£3.5 million). This includes state of the art teaching laboratories and new specialist laboratories including a consumer experience laboratory and a new product development pilot-scale laboratory. These are used for assessing and developing new food products whilst designing, developing, testing and scaling-up new prototypes and ultimately launching commercially ready final products.

The facilities that are available at Abertay university include smoker oven, ultra-high temperature processing equipment, aseptic filling machine, freeze dryer and spray dryer, spray chiller, homogenizers, ovens, rheometer and particle size analyser, milling and blending devices.

The science laboratories have a diversity of analytical apparatus such as atomic absorption spectrometer, GC with flame ionization detector, LCMSMS, GCMS equipped with headspace and SPME and a purge and trap unit, HPLCs with a variety of detectors, ion chromatography, spectrophotometers, state of the art microbiology facilities that include small-scale fermenters.

3. The Role

The Main purpose of the Role

You will be engaged in the project “SHEALTHY - Non-thermal physical technologies to preserve nutritional quality of fresh fruit and vegetables” as a Research Fellow at Abertay University working in a Horizon 2020 European project that involves several food companies and research institutions across the Europe.

Role Specific Duties and Responsibilities

You will actively engage:

- Optimise a combination of non-thermal technologies (and in particular ultrasound) to improve the safety and quality of minimally processed F&V and F&V based juices and smoothies in collaboration with other European institution.
- Improve the sustainability of minimally processed F&V and F&V based juices and smoothies by extraction of bioactive compound from fruit and vegetables coproducts & by-products.
- Develop and validate analysis methods for detection and quantification of phenolic compounds using gas and liquid chromatography coupled with mass spectrometry.
- Examine the bioavailability of the bioactive compounds in F&V and F&V based juices during in vitro digestive system
- Write progress reports and contribute to scientific presentations and papers

4. Person Specification		
Attributes	Essential Selection Criteria	Desirable Selection Criteria
Education/Qualifications	Master degree in analytical science, food science and technology, applied chemistry or related discipline.	PhD in a related discipline
Knowledge and Experience	Substantial working experience with analytical and chemical techniques such as GCMS, LCMSMS and HPLC, and excellent practical laboratory skills Strong numerical and data analysis skills Strong organisational and time management skills	Experience or knowledge of bioactive extractions and purification. Ability to use successfully statistical software, e.g. SPSS, Minitab, Xlstat Experience in proposal writing.

	<p>Strong project management skills</p> <p>Working knowledge of chemical processes and / or food new product development processes</p> <p>Ability to work on own on a variety of tasks and with overlapping deadlines</p>	
Competencies *	<p>Effective Communication</p> <p>Decision Making</p> <p>Planning and Organising</p> <p>Initiative and Problem Solving</p> <p>Teamwork and Motivation</p> <p>Sensory and Physical Demands</p>	

5. Competencies

In order to achieve Abertay University's goals all employees need to demonstrate the following competencies:

Effective Communication

Definition: The use of appropriate communications media and methods, to convey, explain or discuss information in a manner that is clear and accurate for the target audience.

Expected level – The ability to use a range of media to clearly and accurately communicate specialist or highly technical knowledge and conceptual ideas to a variety of groups, including, peers and external bodies.

Decision Making

Definition: Active contribution to/ leadership of decision making processes within the team which ensure objectives are achieved and quality standards are maintained.

Expected level – The ability to positively contribute to the decision making within the team to reach an optimal conclusion and to use their judgment to make decisions with limited/ambiguous data, taking into account, multiple factors.

Planning & Organising

Definition: Proactive planning, prioritisation and organisation of work activities and resources to ensure best value is achieved whilst maintaining service availability and quality standards.

Expected level – The ability to effectively plan their own activities and resource requirements with the framework of agreed research programmes and to co-ordinate with others to avoid conflict and duplication, developing plans to take account of problems, delays and new priorities.

Initiative and Problem Solving

Definition: Showing desire for continuous improvement in individual and team performance by actively contributing to problem solving and responding positively to opportunities for development.

Expected level – The ability to show initiative, creativity and judgment in their research and to work with colleagues to identify areas for improvement within their team.

Teamwork and Motivation

Definition: Working with others in a co-operative and collaborative capacity to motivate and, where necessary, lead teams to achieve their objectives.

Expected level – The ability to monitor progress, anticipate difficulties, take appropriate preventative action, and provide support and assistance to other members of the team so that the team are able to achieve their objectives.

Sensory & Physical Demands

Definition: Applying skilled techniques and co-ordinating sensory information with high levels of precision and/or accuracy.

Expected level – The ability to apply advanced level of skills to carry out highly specialist or very complex tasks, requiring either mastery of a wide range of sensory or physical techniques while enforcing safe working practices and identifying ways of improving techniques and practice.

6. Appointment Details

Salary will be within the range £ 26,495 to £31,604 a year on grade 6 of the University's salary scale.

The post is full-time and begins as soon as possible and lasts until 30st April 2023

The annual holiday entitlement is 28 days, plus 8 University closure days. If the post is part-time, the holiday entitlement will be reduced pro rata. The leave year is September to August. If the post is part-time, or appointment is made part-way through the year, holiday entitlement will be reduced pro rata.

The University provides access to the following pension scheme based on eligibility criteria, Scottish Teachers Superannuation Scheme (STSS), Local Government Pension Scheme (LGPS), Universities Superannuation Scheme (USS)

7. Application Process

If you have any informal enquiries regarding the post, please contact:
a.fiore@abertay.ac.uk; +44 (0)1382 308043 (recruiting manager)

Making your application

Internal Applicant

When you are ready to start your application, you can apply via Employee Self-Service, there will be a link called 'Apply for a Job'. The application form will be populated automatically with the personal data currently held about you.

External Applicant

When you are ready to start your application, you will be prompted to register on our online recruitment system, which can be found at
<https://www.abertay.ac.uk/discover/work-here/jobs/>

You will be guided through all of the stages of the application form. You will also be asked to upload your curriculum vitae. Within the online application form you will be asked to provide a supporting statement, this should be used to provide evidence that you meet all essential criteria within the person specification, including the essential competencies. Providing evidence is crucial as the essential criteria are mandatory requirements for the post. If you do not provide sufficient evidence for these requirements then we cannot guarantee that you will be short-listed for interview.

Interviews

It is anticipated that interviews for the post will be held on **Wednesday 14th February 2020**. Applicants who are shortlisted for interview will be sent details of time and venue soon after the closing date.

The closing date for receipt of applications is midnight on 8th February 2020.

If you have any queries regarding your application, please contact:
recruitment@abertay.ac.uk; +44 (0)1382 308031

Committed to Equal Opportunities

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